COMPANY EXPERTS GATHER

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hanging tobacco — farmers who have electric fans, which they got, primarily, for use in drying of hay in the barn.

"Trouble with this kind of weather is too much moisture in the air; for every 15 degree rise in temperature, the moisture content of the atmosphere is doubled," the experts report.

Since circulation of the air reduces the moisture, one suggestion is the removal of some laths, every few tiers in the shed, so that there will be space for air to move through the hanging tobacco. Most serious damage discovered was in tobacco not hung in regular sheds, but in barns, and where circulation of air was blocked off by hay or straw mows.

During a critical period, use of charcoal, coke or other fuel may be feasible. There is always the danger of fire, unless sand or dirt, or some protective covering, is placed on a wooden floor.

Sloat estimated that 40 to 50 per cent of the 1950 crop is still in the field—the latest harvest for many years. Rust is beginning to develop and spread, aided by current weather conditions. In such cases it is important that growers finish suckering and harvesting their leaf as soon as possible—YORKAD.

Advertised Sales In Ohio State

DAYTON, O. — Smokers' supplies at King's include these pipe tobaccos: Bond Street, 14c; Edgeworth, 14c; Friends, 8c; Half and Half, 11c; Model, 9c; Kentucky Club, 13c; Union Leader, 9c, and Prince Albert, 11c. In aromatic to-

Tobacco Chemistry Discussed at Meet Of Technicians from Numerous Labs

By ERNEST G. BEINHART

Eastern Regional Research Laboratory[1]

PHILADELPHIA, Pa.—Fourth annual research conference on the chemistry of tobacco was held at State College, Pa., Sept. 11 and 12. Sixteen papers, covering a wide range of subjects on tobacco chemistry, were read during the four sessions of the two-day meeting.

Dr. Clifford O. Jensen, professor of phytochemistry at Penn State, was in general charge of the meetings, and of the organization of the program. He also attended to the housing of the 82 delegates at the delightful Nittany Lion Inn, on the college campus. The group was welcomed by Professor R. A. Dutcher, chairman of the council on research. Dr. Dutcher reviewed some of the notable work done with tobacco at Pennsylvania State College, in the experiment station at Lancaster.

This conference is a chemists' meeting of especial interest to the factory laboratories, and the research workers dealing with manufacturing problems and related subjects. The entire American tobacco manufacturing industry, with but one exception, was represented at the Penn State meeting.

This chemists' group is quite informal. It has no officers, no by-laws, and the only rules are that its programs be directed to manufacturing problems. These have acquired increasing interest and importance, since the first meeting was held at the Eastern Regional Research Laboratory, at Philadelphia.

Two committees were designated to serve for the coming year. One at Duke University in the Fall of 1951. This required a second committee for program and arrangements for the Duke meetnig, and Professors M. E. Hobbs and Fred A. Wolf, of Duke University, were elected to serve on this responsible committee. It was recalled that Duke University has long been a leader in tobacco research.

No Affiliations

Two proposals were made at the Penn State meeting to have the group join with the American Chemical Society in a tobacco symposium to be held in New York next Sept., and to become affiliated with the recently organized tobacco research organization at Cologne, Germany. Both propositions were voted down, which action followed a previous vote not to affiliate with the agronomy research workers conference, long active in the flue-cured States.

It was pointed out that many members of the group already are members of the chemical society, and the program for the New York meeting is in good hands, and, if one desires, he may attend both the New York meeting and the Dur-

ville, Md., discussed "The Effect of Amino Acids on the Growth and Composition of Tobacco." This was a description of some of the classical research, which has revealed the functions of some twelve amino acids, their effects upon the growth, and, probably, the cure of the leaf. Iso-leucine, for example, at the rate of only 3 parts per million in an agar medium, causes "frenching," or polyphylly.

R. F. Dawson, of Columbia University, discussed the "Formation of Nornicotine from Nicotine in Burley Tobacco." A. E. Palmer and E. W. Flosdorf, of Bayuk Cigars, Inc., described the correlations between the rainfall of the past ten years on the total alkaloid content of Pennsylvania seed leaf tobacco.

J. M. Moseley, of the American Tobacco Co., read a paper on the "Nitrogenous Fractions of Burley Tobacco as a Guide to Quality."

Analytical Methods

Second session, Monday afternoon, was presided over by James F. Couch, with four papers presented by staff members of the Eastern Regional Research Laboratory. Joseph Naghski, with "Progress on the Separation of Nicotine Oxidation Products by Paper Chromatography," briefly reviewed previous work on the oxidation of nicotine, and the similarity of the so-called Philadelphia compound, secured by Frankenburg, in fermenting cigar tobacco with the material secured in oxidizing nicotine with methylene blue in visible light. Naghski found this latter product a complex mixture. Six components were found, four in appreciable quantities, and two in trace amounts.

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AKRON, O. — Walgreen's offer smokers' savings, including 5c brand sack tobaccos, 3 for 10c; durable plastic cigarette case, 6c; 25c Lito 8-ounce lighting fluid, 19c; box of 50 King Edward cigars, $2.70, and ash tray, 59c.—ROUND TABLE.

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Two committees were designated to serve for the coming year. One is concerned with the standardization of analytical methods used in tobacco analyses. Dr. James F. Couch, of the Eastern Regional Research Laboratory, was named chairman of this group, which also includes R. C. Ernst, of Brown & Williamson Tobacco Corp., Louisville, Ky.; J. M. Moseley, American Tobacco Co. Research Laboratory, Richmond, Va.; F. R. Darkis, Liggett & Myers Tobacco Research Laboratory, Durham, N. C.; and W. G. Frankenburg, General Cigar Co. Research Laboratory, Lancaster, Pa. This group is to clarify the analytical methods especially concerned with tobacco, and to simplify procedures.

The group was invited to meet

[1] One of the laboratories of the Bureau of Agricultural and Industrial Chemistry, Agricultural Research Administration, United States Department of Agriculture.

the agronomy research workers conference, long active in the flue-cured States.

It was pointed out that many members of the group already are members of the chemical society, and the program for the New York meeting is in good hands, and, if one desires, he may attend both the New York meeting and the Durham meeting. It was also pointed out that of the more than 100 chemists actively participating in the chemist conferences, during the past few years, only a small number also attend the agronomy meetings. Furthermore, the present chemical group has succeeded very well, and its informality has carried it as far as more formal procedures and organizations could have done. And, after all, it is still a manufacturing chemists' organization.

The Program

The program was divided into four general topics, one for each of the one half-day sessions. First session, presided over by Dr. C. O. Jensen, was concerned with nitrogan compounds. Dr. R. A. Steinberg, of the tobacco division, Beltsvious work on the oxidation of nicotine, and the similarity of the so-called Philadelphia compound, secured by Frankenburg, in fermenting cigar tobacco with the material secured in oxidizing nicotine with methylene blue in visible light. Naghski found this latter product a complex mixture. Six components were found, four in appreciable quantities, and two in trace amounts. Comparison showed that one of the major components behaved chromatographically similar to nicotine oxide.

Second paper of the session, by C. Ricciuti and C. O. Willits, described the "Determination of Nornicotine by Amperometric Titration." It reported upon a preliminary study of the technique using silicotungstic acid.

C. Roland Eddy, under the title "Infrared Spectra of Tobacco Alkaloids and Some of Their Derivatives," described the Beckman Model IR-3 Infrared spectrophotometer, recently acquired by the Eastern Regional Research Laboratory. He showed absorption spectrograms of nicotine and nornicotine as examples of tobacco alkaloids, and stated that he had also obtained infrared spectra of nico-

Manufacturing Problems Discussed